AMENDMENTS TO THE SPECIFICATION

Amend the specification by amending paragraph [39] on page 17 as follows:

[39] The shearing interferometer unit is of a conventional design per se, for example as is described in the above-mentioned DE 101 09 929 A1 and in the prior German Patent Application 102 17 242.0, likewise mentioned above, to which reference can be made for further details. The required control and evaluation processes are implemented in the evaluation unit 13a, as is evident straight away to the person skilled in the art from the present description of the associated process steps. The basic two-beam interferometry in the Jones matrix calculus is illustrated diagrammatically by way of example in Figure 3. This yields the exit-side radiation intensity for the superimposition of two fields which are represented by an original Jones matrix T and a Jones matrix T_Δ displaced by Δx, from the trace formation of a matrix product of the sum matrix $T+T_\Delta$ by the entrance polarization matrix P_{in}, and the hermite conjugate sum matrix $(T+T_\Delta)^+$. If the original and the displaced Jones matrix T and T_Δ, respectively, are known up to a constant phase factor, their phase difference $\Delta\alpha$ can be determined from the relationship

~~$\exp[i\Delta\alpha]=Q/\mathrm{trace}[TP_{in}T_\Delta^+]$,~~

$$\exp[i\Delta\alpha]=Q/\mathrm{trace}[\hat{T}P_{in}\hat{T}_\Delta^+],$$

with $Q=\mathrm{trace}\,[TP_{in}T_\Delta^+]$ and ~~T as well as T_Δ~~ $\hat{T}=\exp[i\alpha]\cdot T$ as well as $\hat{T}_\Delta=\exp[-i(\alpha+\Delta\alpha)]\cdot T_\Delta$ denoting the phase-reduced original and displaced Jones matrix, respectively. The generally complex number Q can be obtained by measurement with the shearing interferometer unit 14 from the amplitude and phase of the modulation signal while using the phase shift technique. Since the use of shearing interferometry currently being considered

permits the use of the same radiation which is used in the actual useful operation of the polarization objective 2, this measurement technology is also denoted as operational interferometer (OI) measurement technology.